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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,045	08/01/2006	Stefan Lippert	40149/01701 (068P 0667)	5035

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EXAMINER	
WILHELM, TIMOTHY	
ART UNIT	PAPER NUMBER
3616	

MAIL DATE	DELIVERY MODE
12/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/588,045	LIPPERT ET AL.	
	Examiner	Art Unit	
	Timothy D. Wilhelm	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,6,7 and 9-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,6,7, and 9-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/23/2009 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant has claimed a "further drive" situated on the steering drive of the invention but

has failed to disclose the pertinence, intended use, or construction of said further drive in correlation with the steering drive. In the original disclosure of the present application, said further drive was only briefly mentioned in original claim 11 without any further description provided within the specification supporting the Applicant's purpose for including a further drive or how it would be meant to be used and constructed as part of the invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 6,7,9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aregger (U.S. 6,276,480 B1) in view of Matsumoto et al. (U.S. 4,778,024) further in view of Vuagnat (U.S. 4,881,755), and finally in view of Leitner et al (U.S. 6,491,122). Aregger discloses a vehicle for a handicapped person, comprising:

at least one steerable front wheel (Element 7);

a frame (Element 12);

at least two wheel suspensions (Elements 13, 14, 16, 18 and 27-30);

at least two rear wheels (Elements 6), each of the at least two rear wheels being; individually coupled to the frame with a corresponding one of the at least wheel suspensions (Elements 27-30).

6. Aregger does not specifically disclose an at least one controllable steering drive driving the at least two rear wheels. Matsumoto discloses the use of a vehicle having at least one steerable front wheel (Element 101), and at least two rear wheels, having an at least one controllable steering drive driving the at least two rear wheels (Elements 102 and 103).

7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Aregger to utilize at least one controllable steering drive driving the at least two rear wheels, in view of the teachings of Matsumoto, so as to improve maneuverability of the vehicle by reducing turning radius, thereby enabling the vehicle to be operated in tighter areas. Moreover, since it is known to use a controllable steering drive driving at least two rear wheels, on other vehicles, in view of Matsumoto, making this modification would also have been obvious as being no more than an obvious variation that one of ordinary skill in the art would recognize as no more than the predictable use of prior art elements according to their established functions.

8. Regarding claim 13, the combination of Aregger in view of Matsumoto further discloses that the at least two rear wheels are pivotable by at least 90 degrees (compare Figs. 2 and 3, showing the rear wheels being pivoted more than 90 degrees).

9. With respect to claim 14, the combination of Aregger in view of Matsumoto further discloses a front controllable steering drive (Element 17 of Aregger), controlling at least one front wheel (Element 7 of Aregger).

10. With respect to claim 4, the combination of Aregger in view of Matsumoto further discloses: a means for holding the at least one front wheel (Element 7 is wheel, see portion supporting axle (Element 5), this is said means discussed above); and a steering rod (portion below handlebar (element 17)) connected to the said means and steering the at least one front wheel (Element 7). Nevertheless, this means is not specifically referred to as a fork. Vuagnat discloses a steering device having a fork (elements 6 and 7), wherein a steering rod (element 2) is connected through [claim 9] a cardan joint (Col. 2, Line 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of Aregger in view of Matsumoto, further in view of Itoh, to utilize a fork, wherein said fork is connected to said steering rod through a cardan joint, since use of such a steering means is old and well known and making the modification is no more than the predictable substitution of one known steering means for another.

11. With respect to claim 12, Aregger in view of Matsumoto further in view of Vuagnat, further discloses that the steering rod (see element 2 of Vuagnat) is pivotable parallel to an axis of the fork between two end abutments (See, Fig. 1, of Vuagnat).

12. The combination of Aregger in view of Matsumoto further in view of Vuagnat, does not specifically further disclose the use of a rotational angle sensor situated on the steering rod for measuring a pivot angle of the front wheel, as well as a change-over switch. Leitner teaches a variable-speed control for a vehicle including the use of a steering angle sensor situated on a steering rod (Element 44) that detects the pivot angle of the steering rod and front wheel for ensuring that an operator does not exceed a safe speed, while turning, that would make a turn unsafe (Col. 5, Line 60 to Col. 6, Line 9) and a change-over switch that switches between two drive modes for the rear wheels allowing for different maximum speeds of the vehicle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified combination of Aregger in view of Matsumoto further in view of Vuagnat, to utilize at least one rotational angle sensor situated on the steering rod, in view of Leitner, so as to improve safety by helping to ensure that the vehicle does not exceed a safe speed while a turn is in progress.

13. Claim 3, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aregger (U.S. 6,276,480 B1) in view of Matsumoto et al. (U.S. 4,778,024) further in view of Vuagnat (U.S. 4,881,755) and further in view of Leitner et al (U.S. 6,491,122) as applied to claim 1,4-9, and 12-14 above, and further in view of Itoh (U.S. Pub. App. 2004/0238259 A1). With respect to claim 2, the combination of Aregger, Matsumoto, Vuagnat, and Leitner does not specifically further disclose that at least one steering drive includes a corresponding steering drive for each of the at least two rear wheels. Itoh discloses the use of a vehicle having steerable rear wheels, having an at least one

steering drive that includes a corresponding steering drive for each of the at least two rear wheels (either elements 21-22 or 23-24 depending on direction of the vehicle). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified the combination of Aregger, Matsumoto, Vuagnat, and Leitner, such that the combination included said at least one steering drive includes a corresponding steering drive for each of the at least two rear wheels, in view of Itoh, since steering the rear wheels in this manner would eliminate the need for mechanical linkages, that would take a lot of space, thereby enabling the vehicle to be made more compactly and also more space efficiently. Additionally, since it is known to use a steering drive includes a corresponding steering drive for each of the at least two rear wheels on a vehicle, the choice of making this modification on another vehicle, would be no more than the simple substitution of one known means for controlling said rear wheels for another, in a manner that would have been predictable to one of ordinary skill in the art at the time of invention. Hence, making the above modification would have also been obvious as a predictable simple substitution of one old and well known means for steering steerable wheels for another known means for steering said wheels.

14. With respect to claim 3, the combination of Aregger, Matsumoto, Vuagnat, and Leitner, further in view of Itoh, further discloses the use a steering drive that is a hub-drive (note that elements 21-22 or 23-24, taught by Itoh as utilized in the combination would turn the hubs of the vehicle taught by Aregger, Matsumoto, Vuagnat, and Leitner, further in view of Itoh).

15. Regarding claim 10, the combination of Aregger, Matsumoto, Vuagnat, and Leitner, further in view of Itoh, further discloses that the at least one steering drive is a linear motor (note that elements 21-22 and 23-24, are considered to be linear motors, to the extent that this term may be broadly and reasonably defined, on the basis that they are linearly above the respective wheels and that they also act to change the line of travel of the vehicle).

16. With respect to claim 15, the combination of Aregger, Matsumoto, Vuagnat, and Leitner further in view of Itoh discloses that the least one front wheel includes first and second front wheels, the at least one front steering drive includes first and second first and second front steering drives, wherein each of the first and second front wheels is controllable mad pivotable individually by a corresponding one of the first and second front steering drives. Regarding this claim the applicant should note that this would occur should the teaching of four wheels and four motors as taught by Itoh be applied to the combination (See, elements 11-14 (wheels) and 21-24 (motors) of Itoh).

Response to Arguments

17. Applicant's arguments with respect to claims 1,3,6,7, and 9-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D. Wilhelm whose telephone number is 571-

272-6980. The examiner can normally be reached on 9:00 AM to 5:30 PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Timothy D Wilhelm
Examiner
Art Unit 3616

/Timothy D Wilhelm/
December 3, 2009

/Paul N. Dickson/
Supervisory Patent Examiner, Art Unit 3616